

## ABSTRACT OF THE DISCLOSURE

In a communications system having a first modem pool for communicating with a second modem pool, each modem pool including a plurality of modems and having at least one NEXT cancellation filter, a method for modem wake-up including the steps of, during a first time period, a) activating at least one of the modems in the first modem pool, b) deactivating at least one of the modems in the second modem pool, for at least one target modem in the first modem pool c) activating the first modem pool NEXT canceller filter, d) measuring the NEXT transfer function for the target modem and at least one other disturber modem in the first modem pool, and, during a second time period, e) activating at least one of the modems in the second modem pool, f) deactivating at least one of the modems in the first modem pool, for at least one target modem in the second modem pool g) activating the second modem pool NEXT canceller filter, and h) measuring the NEXT transfer function for the target modem and at least one other disturber modem in the second modem pool.